



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/528,688

05/17/2005

Carolyn Ann Foster

TX/4-32544A

4630

1095

7590

06/25/2008

NOVARTIS  
CORPORATE INTELLECTUAL PROPERTY  
ONE HEALTH PLAZA 104/3  
EAST HANOVER, NJ 07936-1080

EXAMINER

JAVANMARD, SAHAR

ART UNIT

PAPER NUMBER

1617

MAIL DATE

DELIVERY MODE

06/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,688	<b>Applicant(s)</b> FOSTER ET AL.	
	<b>Examiner</b> SAHAR JAVANMARD	<b>Art Unit</b> 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/21/05; 9/19/06</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

This Office Action is in response to Applicant's Restriction Requirement remarks filed on March 18, 2008. Claim(s) 12-16 are pending. Claim(s) 1-11 have been cancelled. Applicant's election of Group II drawn to methods of treatment and election of species of 2-amino-2-[2-(4-octylphenyl) ethyl]propane-1,3-diol as the S1P agonist with traverse of the restriction requirement in the reply is acknowledged.

The Applicants did not agree with the restriction requirement, however, because no arguments were set forth, the restriction is considered as without traverse.

The requirement is deemed proper and is therefore made FINAL. Claim(s) 12-16 are examined herein insofar as they read on the elected invention and species.

### ***Information Disclosure Statement***

The information disclosure statement filed 3/21/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Applicants may, in response to this and no later Office Action, submit the missing references. Such submissions will be considered to have been part of the respective Information Disclosure Statement filed on 3/21/2005, and the PTO-1449 will be updated

accordingly. No fee for the submission of such references is required, nor should applicants file an additional form PTO-1449 with the missing references.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita (US Patent No. 6,187,821 B1) in view of <http://www.multiple-sclerosis.org/opticneuritis.html> (referred to as "ON website" heretofore) in further view of Hughes (US Patent No. 5,138,051).

Fujita teaches a series of benzene compounds of formula I (tables 1- 24) which greatly overlap in scope to Applicant's compounds encompassed by formula I of claim 12. Specifically, Fujita teaches 2-amino-2-[2-(4-octylphenyl) ethyl]butane-1,4-diol (table 19, 1<sup>st</sup> entry, claim 9) and 2-amino-2-[2-(4-octylphenyl) propyl]butane-1,4-diol (table 18, 2<sup>nd</sup> entry).

Fujita teaches the benzene compounds as immunosuppressants for the treatment of various autoimmune diseases including multiple sclerosis (column 79, line 61- column 81, line 50; claims 16-22). The compounds can also be employed in the treatment of certain eye diseases including conjunctivitis, keratoconjunctivitis, keratitis, vernal conjunctivitis, uveitis associated with Behçet's disease, herpetic keratitis, conical cornea, dystorpha epithelialis corneae, keratoleukoma, ocular pemphigus, Mooren's ulcer, scleritis, Graves' ophthalmopathy, severe intraocular inflammation and the like (column 80, lines 43-50).

Furthermore, Fujita teaches the benzene compounds of formula I can be administered with other immunosuppressants (such as rapamycin), steroids, and nonsteroidal anti-inflammatory agent.

Fujita does not specifically teach the compounds as treating the eye disease optic neuritis. Fujita does not teach 2-amino-2-[2-(4-octylphenyl) ethyl]propane-1,3-diol or 2-amino-2-{2-[4-(1-oxo-5- phenylpentyl)phenyl]ethyl}propane-1,3-diol. Additionally,

Fujita does not discuss the clinical effectiveness of rapamycin against a demyelinating disease.

The ON website teaches that optic neuritis is an inflammation with accompanying demyelination of the optic nerve and is one of the most frequently presenting symptoms of multiple sclerosis.

Hughes teaches that rapamycin is effective in the experimental allergic encephalitis model, a model for multiple sclerosis.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have administered the benzene compounds for the treatment of autoimmune disorders such as multiple sclerosis, a demyelinating disease, and other eye disorders as taught by Fujita and also have administered said compounds for the treatment of optic neuritis. The motivation, provided by the ON website, teaches that optic neuritis is an inflammation with accompanying demyelination of the optic nerve and is one of the most frequently presenting symptoms of multiple sclerosis. Thus because Fujita teaches that the benzene compounds are used to treat multiple sclerosis and an assorted variety of eye diseases, one would expect with a reasonable degree of success that said compounds would also be effective in treating optic neuritis, a demyelinating eye condition.

Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to have employed 2-amino-2-[2-(4-octylphenyl) ethyl]propane-1,3-diol to treat optic neuritis. Compounds that differ only by the presence of an extra methyl group are homologues which are of such close structural similarity that the disclosure of a

compound renders prima facie obvious its homologue. The homologue is expected to be preparable by the same method and to have the same properties. This expectation is then deemed the motivation for preparing homologues. Homologues are obvious even in the absence of a specific teaching to methylate, *In re Wood* 199 USPQ 137; *In re Hoke* 195 USPQ 148; *In re Lohr* 137 USPQ 548; *In re Magerlein* 202 USPQ 473; *In re Wiechert* 152 USPQ 249; *Ex parte Henkel* 130 USPQ 474; *In re Fauque* 121 USPQ 425; *In re Druey* 138 USPQ 39.

### **Conclusion**

Claims 12-16 are not allowed.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sahar Javanmard whose telephone number is (571) 270-3280. The examiner can normally be reached on 8 AM-5 PM MON-FRI (EST).

Art Unit: 1617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/S. J./

Examiner, Art Unit 1617

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1617